REMARKS

The following remarks are largely directed towards the Final Office Action, which was mailed September 14, 2001, in the parent of the present CPA.

In the Office Action the Examiner withdrew the rejections made under 35 U.S.C. §101 and §112, second paragraph. Applicant expresses his gratitude for this determination.

In the Office Action the Examiner continued his rejection of the claims under 35 U.S.C. §103(a) based on **Chen** (Chemical Sensors, 15:295-97 (1995)) and **Coetzee** (S. Afr. Tydskr, Chem. 44:22-24 (1991)). With this Office Action, the Examiner has provided a translation of the **Chen** article. Applicant thanks the Examiner for this helpful translation.

It appears to be the Examiner's position that **Chen** shows the use of an iodine titration with an electrode to detect a dietary antioxidant but does not disclose the use of PVP in such a titration. **Coetzee**, however, does teach the use of PVP in an iodine titration. Therefore, it would have been obvious to combine the two references to yield Applicant's invention. The Examiner notes that Applicant has not claimed a "wide range" of dietary antioxidants so that the single instance of ascorbic acid determination by **Chen** is adequate to render the entire invention obvious.

The Examiner's comments go to the heart of the present invention. While it may have been known that an iodine titration could provide a determination of ascorbic acid, it was not known that iodine titration could provide a measure indicative of a wide range of dietary antioxidant substances. As pointed out in the specification and in the Remarks to previous Amendments, the present interest in antioxidant foods and in overall antioxidant status in terms of human health has made a simple measure of a wide range of dietary antioxidants of significant use.

Chen teaches that iodine titration is able to render an accurate determination of ascorbic acid in a beverage. For example, on page 6 of the English translation, **Chen** compares the ascorbic acid measured in mango juice with that in "fresh orange crystals". Applicant presumes that "fresh orange crystals" represents an artificial beverage powder/drink mix. Therefore, it is likely that the sole dietary antioxidant in "fresh orange crystals" is ascorbic acid specifically added to provide vitamin C. However, it is widely known that mango juice is rich in carotenoids and phenolics—both significant dietary antioxidants.

Although not detailed in the **Chen** manuscript, it seems likely that the described assay was verified by some independent measure of ascorbic acid. Therefore, it seems likely that the reported method did not significantly measure the other dietary antioxidants present in the mango juice. The reason for this failure to measure other dietary antioxidants is presently unknown. It may result from the use of chloroacetic acid buffer by **Chen**, it may result from the elevated

need a declaration to make these statements

temperature used by **Chen**, or it may result from not employing an iodophor in the reagent. In any case, **Chen** teaches that iodine titration provides an accurate determination of ascorbic acid in mango juice. The only conclusion one skilled in the art could reach is that iodine titration cannot be used to measure simultaneously a wide variety of dietary antioxidants. Therefore, **Chen** actually teaches against the present invention.

Applicant agrees that motivation exists to combine **Chen** and **Coetzee** so as to improve the stability of the reagents. However, neither reference provides teaching or suggestion that such a combination might be useful for determining a wide variety of dietary antioxidants as opposed to determining just ascorbic acid. In fact, we do not know if such a combination would measure a wide variety of dietary antioxidants as temperature or chloroacetic acid might confound such a measurement. Since the references fail to provide teaching or suggestion for the invention as it is now claimed, Applicant respectfully requests the Examiner to withdraw the claim rejections made under 35 U.S.C. §103(a) based on **Chen** and **Coetzee**.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner still finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney

at the Los Angeles telephone number (310) 734-5200 to discuss the steps necessary for placing the application in condition for allowance. You are hereby authorized to charge any fees due and refund any surplus fees to our Deposit Account No. 50-1796.

Respectfully submitted,

CROSBY, HEAFEY, ROACH & MAY

Date: 12 February 2002

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Red-lined Claim Copy (Revised Rule 121)

1. (Twice Amended) A method for determining a [level] composite measure indicative of the presence of a wide variety of dietary [antioxidant] antioxidants in a liquid sample comprising the steps of:

providing a liquid sample containing dietary material or a biological fluid to be tested;

contacting the liquid sample with an aqueous solution of elemental iodine and an iodophor to form a mixture; and

measuring a change in a concentration of iodide ions in the mixture wherein the change represents the composite measure of the presence of a wide variety [corresponds to the level] of dietary [antioxidant] antioxidants in the dietary material or the biological fluid.

4. (Twice Amended) A method for determining a [level] composite measure indicative of the presence of a wide variety of dietary antioxidant in an aqueous liquid sample comprising the steps of:

providing an aqueous liquid sample containing dietary material or a biological fluid to be tested;

contacting the sample with an aqueous solution of elemental iodine and polyvinylpyrrolidone to form a mixture; and

measuring an increase in a concentration of iodide ions in the mixture by means of an iodide selective electrode wherein the increase represents the composite measure of the presence of a wide variety [corresponds to the level] of dietary [antioxidant] antioxidants in the dietary material or the biological fluid.